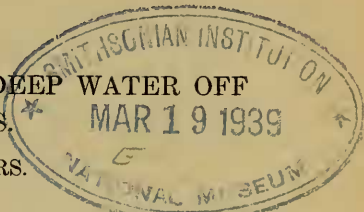


PROCEEDINGS
OF THE
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A NEW OWSTONIID FISH FROM DEEP WATER OFF
THE PHILIPPINES.

BY GEORGE S. MYERS.



In the course of studies on the Owstoniid fishes in the United States National Museum, the following apparently undescribed species was discovered:

Sphenanthias pectinifer, new species.

Holotype.—U. S. N. M. 93455, standard length 141 mm., parchment tag 1859, *Albatross* dredging station 5255, latitude 7° 03' N., longitude 125° 39' E., off Dumalag Island, Davao Bay, Mindanao, Philippines, 100 fathoms, May 18, 1908.

Description.—Dorsal with 4 soft, slender, unarticulated spines, and 23½ articulated rays, the first few of which are unbranched. It is very difficult to determine which soft ray is the first to be branched at its slender, flabby tip, but it is certain that all rays posterior to the middle of the fin are branched. Anal with 2 short, slender, sharp, rather rigid, unarticulated spines, and 16½ articulated soft rays, the first four or five of which are unbranched. Caudal with 13 principal rays, all branched; supporting these are 4 unbranched, articulated rays above, and 5 unbranched articulated rays below. The most anterior of these supporting rays are very tiny. Pelvics with one rather stout spine; a very elongate, unbranched, soft ray, and 4 branched rays. Pectorals each with 19 articulated rays, the upper two and the lower two unbranched, all the others branched. Fins placed and shaped like those of *S. sibogæ*, the pectorals short and rounded, the first soft pelvic ray greatly elongated, and the middle caudal rays greatly produced.

Scales very large and thin, rounded apically, roughly squared or convex basally, the apical border faintly to rather strongly crenulated into weak points, the spaces between the points concave. Nucleus a little apicad of center. Basal border crenulated into rounded projections, the intervals between them being the starting points of radial lines which converge toward the nucleus. The apical or visible sector thus has no radii, as shown in Weber's figure of a scale of *S. sibogæ*. Circuli very fine, especially across the basal radii; they follow the apical crenulations in their course.

Lateral line reaching to end of dorsal base, its anterior part reaching the dorsal at the base of the fourth spine. No loop around front of dorsal fin.

Longitudinal scales from upper end of gill slit to end of hypural 30. Transverse scales between mid-series of belly and dorsal fin 10, the last

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upper row being the lateral line series. Transverse scales between lateral line series and origin of anal fin $7\frac{1}{2}$. Preventral area and front of base of pelvics scaled. Caudal with an elongate, acuminate patch of smaller scales on its basal part. Vertical fins scaleless. Cheek with 7 to 9 scales, the largest at the angle of the preopercle. Opercles with scales, mostly lost on this specimen. Top of head and maxillary scaleless.

Gill rakers long, setiform, with minute prickles, 18 on upper limb and 27 on lower limb, or 45 in all on first arch. Gills 4, a short slit behind last. Pseudobranchiae well developed. Branchiostegals 6. Gill membranes free from each other and from isthmus.

Teeth small, uniserial except towards symphysis of mandible, where they are biserial, the outer row flaring strongly outward. All jaw teeth flaring outward slightly, except ones of inner row near tip of mandible, which curve inward. A short space at mandibular and premaxillary symphyses toothless. No teeth on tongue, vomer, palatines, or pterygoids.

Mouth nearly vertical. Lower jaw rather shallow, its ramus upraised and deep at posterior end. Upper jaw with a shallow notch at symphysis. Maxillary very broad and flat posteriorly, its end squarely truncated. No spines on opercle. Vertical limb of preopercle smooth. Angle of preopercle and its lower edge with a row of 13 or 14 strong spines, projecting downward and forward.

Depth 4.7 in standard length, head 5.22. Eye 2.25 in head. Interorbital 2.40 in eye. Dorsal origin over upper end of gill slit. Anal origin under base of seventh soft dorsal ray, its end slightly before base of last dorsal ray.

Colorless in alcohol except for the "Owstoniid mark," a jet-black, hidden blotch on the membrane connecting the maxillary and premaxillary (see Myers, *Smithsonian Misc. Coll.*, vol. 91, no. 23, 1935, p. 2).

Measurements in millimeters.—Standard length 141. Total length 234. Depth 30. Head 27. Eye 12. Interorbital 5. Caudal 93. Pectoral 32.5. Least depth caudal peduncle 12. Length caudal peduncle (end dorsal base to first upper supporting ray of caudal) 17.

Discussion.—I am not at all sure that the figures and descriptions of *Sphenanthias sibogæ* (Weber, *Fische der Siboga*, 1913, p. 211, pl. 2, fig. 4; Weber and de Beaufort, *Fishes Indo-Austr. Arch.*, vol. 6, 1931, pp. 114–116, fig. 20) are correct in the representation of articulated *versus* unarticulated dorsal and anal spines and rays; the total count, at least, is lower than in *pectinifer*. According to the figures and descriptions, *sibogæ* has but a single cheek scale, and the lateral line rises to the dorsal fin at the base of the second spine (rather than the fourth). Dr. de Beaufort has very kindly examined Weber's types for me. He finds that the holotype has 38 rakers on the entire first arch, and 3 paratypes each 39 (12 on upper limb and 27 on lower). *S. pectinifer* has 45. The body is more slender and less tapering than that of *sibogæ* and various minor proportions differ. Weber figures 15 branched caudal rays, an important difference if the figure is correct.

An example of *Sphenanthias tenuosoma* (Kamohara, *Annot. Zool. Japonen.*, vol. 15, 1935, p. 136) from off Kochi, Tosa, generously sent me by Prof. Kamohara, has 52 rakers (14 + 38) and the lateral line reaches the dorsal between the fourth and fifth spines. This is an exceedingly elongate species, with depth 6.4, head 5.6, and ten or twelve scales on the cheek.